CLAIMS

1. An apparatus comprising a speed chart and a protractor, said speed chart comprising: at least one speed arc representative of at least one airspeed of an aircraft by at least one distance from a fixed point and markings representative of ground speeds of the aircraft by distances from said fixed point; said speed chart further comprising a compass bearing line, passing through said fixed point and intersecting said at least one speed arc, operative to indicate a direction of flight of the aircraft; said speed chart further comprising a plurality of deviation angle lines, indicative of angular deviation about said fixed point of the flight of the aircraft from flying along said compass bearing line; said protractor comprising a centre point; said protractor further comprising a plurality of spaced range indication lines spaced at predetermined distances from said centre point; said protractor further comprising a base line, passing through said centre point; and said protractor further comprising a plurality of spaced angle indication lines indicating predetermined angular displacements about said centre point and starting with said base line;

said protractor being operative to measure a velocity of wind by aligning the baseline of the protractor along said compass bearing line with the centre point of the protractor coincident with one of the markings representative of an actual ground speed of the aircraft, and with a deviation angle line of the speed chart representing a deviation angle of the aircraft intersecting a selected one of said at least one speed arc representative of the airspeed of the aircraft and, measuring a distance between the centre point and a point of intersection of the deviation angle line with the selected one speed arc; and,

said protractor being operative to measure an angular deviation of wind direction from a course represented by said compass bearing line by measuring an angle of an angle indication line which intersects the point of intersection of the angle

deviation line representing a deviation angle of the aircraft with the selected one speed arc.

2. An apparatus, according to claim 1, wherein said speed chart and said protractor are mounted, each upon a different one of a transparent sleeve and a block, said block being slidable within said sleeve to position the centre point of the protractor at the point of intersection of the selected one speed arc representative of the airspeed of the aircraft with the compass bearing line.

3. An apparatus, according to claim 1, wherein said speed chart and said protractor are mounted each upon a different one of a transparent sleeve and a block, said sleeve and said block being fixed in relationship to one another with the centre point of the protractor at the point of intersection of the selected one speed arc representative of the airspeed of the aircraft with the compass bearing line.

4. An apparatus, according to claim 1, wherein said protractor is fixed upon a surface of said speed chart with the centre point of the protractor at the point of intersection of the selected one speed arc representative of the airspeed of the aircraft with the compass bearing line.

5. An apparatus, according to any one of the preceding claims, wherein said at least one speed arc comprises a plurality of speed arcs, each speed arc of said plurality of speed arcs being representative of a different airspeed of the aircraft, said apparatus further comprising: a customising sheet having a plurality of detachable cutout portions, each of said plurality of cutout portions corresponding in shape and size to a respective one of said plurality of speed arcs; a cutout portion, corresponding to a speed arc which represents the airspeed of the aircraft being detachable from said customising sheet and affixable onto a speed arc which represents the airspeed of the aircraft.

6. An apparatus, according to claim 5, wherein said protractor covers one hundred and eighty degrees in angular extent.

7. An apparatus, according to claim 5 wherein said protractor covers three hundred and sixty degrees in angular extent.

8. An apparatus, according claim 5, wherein said protractor is further useable to measure course and distance between two points on an aeronautical map.

9. An apparatus, according to claim 1, further comprising a scale conversion ruler, operative to provide conversion between aviation map standards, said ruler comprising a plurality of different parallel scales measuring from a common base line.

10. An apparatus, according to claim 9, wherein said scales are representative of at least two of: statute miles; nautical miles; and centimetres.

11. An apparatus, according to claim 10, wherein at least one of: adjacent range indication lines in the protractor; adjacent angle indication lines in the protractor; the cut out portions from the customising sheet and the speed arcs on the speed chart; adjacent deviation lines in the speed chart; adjacent speed arcs in the chart; and adjacent scales on the ruler; are in contrasting bright colours.

12. An apparatus, according to claim 11, wherein said bright colours are primary colours, including at least two of red, green, blue, cyan, magenta and yellow.

13. A scale conversion ruler, for providing conversion between standards used in aviation maps, said ruler comprising a plurality of different parallel scales measuring from a common base line, and said scales being representative of at least two of statute miles, nautical miles, and centimetres.

14. A ruler, according to claim 13, wherein adjacent scales are in contrasting bright colours.

15. A ruler, according to claim 14, wherein said bright colours are primary colours, including at least two of red, green, blue, cyan, magenta and yellow.

16. A protractor comprising: a centre point; a plurality of spaced range indication lines spaced at predetermined distances from said centre point; a base line, passing through said centre point; and a plurality of spaced angle indication lines indicating predetermined angular displacements about said centre point and starting with said base line.

17. A protractor, according to claim 16, wherein at least one of adjacent range indication lines in the protractor, and adjacent angle indication lines in the protractor, are in contrasting bright colours.

18. A protractor, according to claim 17, wherein said bright colours are primary colours, comprising at least two of red, green, blue, cyan, magenta and yellow.

19. A speed chart comprising: a selectable one of a plurality of circular speed arcs, each speed arc being representative of a particular velocity of an aircraft by distance of each speed arc from a fixed point; a compass bearing line, passing through said fixed point, intersecting each of said plurality of speed arcs, and being operative to indicate a direction of flight of the aircraft; and a plurality of deviation angle lines, indicative of angular deviation about said fixed point of the flight of the aircraft from flying along said compass bearing line; whereby a velocity of wind is represented by a distance between the point where said compass bearing line intersects one of said plurality of speed arcs which represents a ground speed of the aircraft and a point of intersection of a deviation angle of the aircraft with one of said plurality of speed arcs which represents the airspeed of the aircraft; and whereby an angular deviation of wind

direction from a course represented by said compass bearing line is represented by an angle between a tangent on that one of said plurality of speed arcs which represents the airspeed of the aircraft at the point where said compass bearing line intersects that one of said plurality of speed arcs which represents the airspeed of the aircraft and the point of intersection of the deviation angle of the aircraft with that one of said plurality of speed arcs which represents the airspeed of the aircraft.

20. A speed chart, according to claim 19, wherein at least one of adjacent deviation lines in the speed chart and adjacent speed arcs in the chart are in contrasting bright colours.

21. A speed chart, according to claim 20, wherein said bright colours are primary colours, include at least two of red, green, blue, cyan, magenta and yellow.

22. A speed chart comprising: a speed arc, representative of an airspeed of an aircraft by distance from a fixed point; a compass bearing line, passing through said fixed point and intersecting said speed arcs, operative to indicate a direction of flight of the aircraft; and a plurality of deviation angle lines, indicative of angular deviation about said fixed point of the flight of the aircraft from flying along said compass bearing line; whereby a velocity of wind speed is represented by a distance between a point where said compass bearing line intersects said speed arc and a point of intersection of the deviation angle of the aircraft with said speed arc; and whereby the angular deviation of the wind direction from a course represented by said compass bearing line is represented by an angle between a tangent on said speed arc at the point of intersection of speed arc and said compass bearing line and the point of intersection of the deviation angle of the aircraft with said speed arc.

23. A speed chart, according to claim 22, adjacent deviation lines in the speed chart are in contrasting bright colours.

24. A speed chart, according to claim 23, wherein said bright colours are primary colours, including at least two of red, green, blue, cyan, magenta and yellow.

25. A navigation set comprising:

a speed chart having a major face and a protractor having a major face and means for mounting said protractor on said speed chart for manually controlled sliding movement of said major face of said protractor across said major face of said speed chart;

said major face of said speed chart being marked with at least one speed arc representative of at least one airspeed of an aircraft by at least one distance from a fixed point and markings representative of ground speeds of the aircraft by distances from said fixed point; said major face of said speed chart further being marked with a compass bearing line for indicating a direction of flight of the aircraft, said compass bearing line passing through said fixed point, intersecting said at least one speed arc and said markings; said major face of said speed chart further comprising a plurality of deviation angle lines, indicative of angular deviation about said fixed point of the flight of the aircraft from flying along said compass bearing line;

said major face of said protractor being made of transparent plastic for overlying on an aeronautical map and marked with a centre point; a plurality of spaced range indication lines spaced at predetermined distances from said centre point; a base line, passing through said centre point; and, a plurality of spaced angle indication lines indicating predetermined angular displacements about said centre point and starting with said base line;

said protractor being operative to measure a velocity of wind by manual sliding adjustment across the major face of the speed chart to align the baseline along said compass bearing line with the centre point of the protractor coincident with a selected one of the markings which represents an actual ground speed of the aircraft and with a deviation angle line of the speed chart representing a deviation angle of the aircraft intersecting a selected one of the said at least one speed arc

representative of the airspeed of the aircraft and, measuring a distance between the centre point and a point of intersection of the angle deviation line with the selected one speed arc; and,

said protractor being operative to measure an angular deviation of wind direction from a course represented by said compass bearing line by measuring an angle of an angle indication line of the protractor which intersects the point of intersection of the angle deviation line representing a deviation angle of the aircraft with the selected one speed arc.